

Addendum/Response

The *ETL Journal* invites readers to respond to or comment on the articles published in the journal by writing a response or an addendum. The short pieces submitted for inclusion in this section will be reviewed by the editors.

More Studies on CALL in North America

citation and similar papers at core.ac.uk

brought

provided by National Taiwan Normal University

National Tsing Hua University

hcliu@mx.nthu.edu.tw

In my previous paper (Liou, 2006), under the section of “The Picture in North America and Beyond,” a research synthesis based on seven papers is reported, including two reviews (Kern, 2006; Levy, 2000) and five articles using meta-analysis (Goldberg, Russill, & Cook, 2003; Lou, Bernard, & Abrami, 2006; Taylor, 2006; Zhao, 2003; Zhuo, 2006). However, only one review article (Levy, 2000) and two of the meta-analysis studies, i.e., Zhao (2003) and Lou et al. (2006), were reviewed in detail. The three additional Meta-analyses (Goldberg et al., 2003; Kern, 2006; Taylor, 2006; Zhuo, 2006) and the other review article (Kern, 2006) are reviewed here to complete the picture of CALL studies in North America.

According to Liou (2006), Zhao (2003) reviewed 156 representative studies conducted between 1997 and 2001 that were published in 22 journals. Similarly, but using a more updated database, Zhuo (2006) used statistical meta-analysis to analyze experimental

studies published in the *CALICO Journal* between 2001 to 2005 via effect sizes to determine the strength of relationships among studies. Thirteen out of a total of 61 articles with some statistics true or quasi-experimental studies. The articles addressed approximately ten different foreign languages or cultures across various language skills or knowledge aspects with a great variety of topics, and with subjects mainly at the tertiary level. It was found that the average effect of computer enhanced language learning was to raise the students' examination scores by about 0.70 standard deviations, or from the 50th to approximately the 70th percentile, showing the superiority of CALL over conventional methods as far as academic achievement is concerned. While the general effect size (weighed by the actual total number of subjects) indicates a large positive effect ($g=0.7$), the true experiments still had larger effect sizes than the quasi-experiments reviewed in this study. In conclusion, Zhuo maintained that meta-analysis should also weigh studies by quality, but only if they can be rated reliably and meaningfully, and both true experiments and detailed statistics are strongly recommended in the publication of future articles.

Targeting specific topics, the other two meta-analysis reports provide overviews on writing and the use of gloss for reading. Goldberg et al. (2003) performed a meta-analysis of 26 studies on writing that were conducted between 1992 and 2002 on K-12 students who used either computers or paper-and-pencil. Significant effects regarding quantity and quality of the writing were found for the groups using computers. Complemented with qualitative analysis, the authors also pointed out that the writing process with the help of

computers was found to be more social, collaborative and iterative. The students who used computers were also found to be more motivated to write. Although keyboarding skills were not found to make a difference in student writing in Goldberg, Russell and Cook's research, the picture may be completely different in Taiwan if we had such data on Chinese writing for K-12 students. Based on observation, the keyboarding skills in Chinese or in English (which is usually worse) of a large number of students may not be adequate enough for writing. However, this assumption definitely deserves future research on Taiwanese students for verification. Investigating the usefulness of gloss for reading, Taylor (2006) conducted a meta-analysis of 18 studies (reported between 1985 and 1999) and found that CALL first language (L1) gloss is more effective than traditional print L1 gloss for L2 reading comprehension. The effects may come from the convenience and efficiency provided by electronic gloss that leads to the processing of a greater amount of L2 text. In spite of the findings that in general learners like electronic gloss, and the use of electronic L1 gloss in CALL materials is generally helpful, Taylor cautions that both advantages and disadvantages must be considered. Four caveats are raised: lack of evidence for long-term effects, learners' misconceptions of L1-L2 item correspondence, excessive use of L1 in L2 classrooms, and shallow processing coming from the readily available help that gloss provides.

Similar to Levy's (2000) review of CALL literature (see Liou, 2006), Kern (2006) in a recent review article published in *TESOL Quarterly* for its fortieth anniversary points out three major CALL research strands that have been popular: computer-mediated communication, electronic literacies, and telecollaboration. He

suggests that communication, identity construction and socialization via electronic literacies, and the impact of new cultures, e.g., intercultural competence, have emerged as important research issues, due to correspondence beyond one single classroom. Influenced by his expanded perspective on traditional CALL, new research agendas and teachers' involvement or mission in a foreign language classroom are extended to a scope beyond language proficiency, with cultures or intercultural communication as crucial in this orientation. Although this is a useful review for CALL scholars world-wide, Kern did not include enough data from Asia or other EFL settings and thus his analysis may not be useful to educators and researchers in Taiwan.

These reviews on CALL studies (Goldberg et al., 2003; Kern, 2006; Levy, 2000; Lou et al., 2006; Taylor, 2006; Zhao, 2003; Zhuo, 2006) increase the breadth and depth of our understanding of quantitative research related to CALL. Evidently, the amount and quality of international CALL-related literature is much greater than that in Taiwan and probably better than that in East Asia. In addition to the research cited above, several recent volumes have been published on projects that have been conducted in various locations worldwide (Beatty, 2003; Ducate & Arnold, 2006; Fotos & Browne, 2004). Repeatedly, researchers in educational technology (Lou et al., 2006) and CALL (Kern, 2006; Zhao, 2003) advocate the argument that it is not the media, per se, that matters; pedagogy matters. Meanwhile, CALL empirical studies have been constantly criticized for their poor experimental control and research design. In one of the leading journals on CALL, *Language Learning and Technology*, the journal policy states clearly that articles related to technological

aspects are not accepted for publication unless they provide an empirical evaluation on actual use.

With this addendum and the previously published paper by Liou (2006), it is hoped that scholars interested in computer assisted language learning can obtain a comprehensive and updated picture of CALL in Taiwan and abroad, and that this information can assist researchers and educators as they explore future uses of CALL in Taiwan.

REFERENCES

- Beatty, K. (2003). *Teaching and researching computer assisted language learning*. New York: Pearson.
- Ducate, L., & Arnold, N. (Eds.). (2006). *Calling on CALL: From theory and research to new directions in foreign language teaching*. Texas State University: CALICO.
- Fotos, S., & Browne, C. M. (Eds.). (2004). *New perspectives on CALL for second language classrooms*. Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Goldberg, A., Russell, M. & Cook, A. (2003). The effect of computers on student writing: A meta-analysis of studies from 1992-2002. *Journal of Technology, Learning and Assessment*, 2(1). Retrieved June 7, 2006, from <http://escholarship.bc.edu/jtla/vol2/1/>
- Kern, R. (2006). Perspectives on technology in learning and teaching languages. *TESOL Quarterly*, 40(1), 183-210.
- Levy, M. (2000, August-September). CALL begins with a "C": Foundations for basic and applied research in CALL. Paper presented at EuroCALL 2000 conference, Dundee, Scotland, U.K.

- Liou, H.-C. (2006). Perspectives on using computer technologies for language teaching and learning in Taiwan. *English Teaching and Learning*. Special issue (2), 51-69.
- Lou, Y., Bernard, R. M. & Abrami, P. C. (2006). Media and pedagogy in undergraduate distance education: A theory-based meta-analysis of empirical literature. *Educational Technology Research and Development*, 54, 141-176.
- Taylor, A. (2006). The effects of CALL versus traditional L1 glosses on L2 reading comprehension. *CALICO Journal*, 23, 309-318.
- Zhao, Y. (2003). Recent developments in technology and language learning: A literature review and meta-analysis. *CALICO Journal*, 21, 7-27.
- Zhuo, F. (2006, May). *Meta-analysis of research studies in CALICO Journal (2001-2005)*. Paper presented at CALICO 2006, University of Hawaii at Manoa, Hawaii.